

1 **WHAT IS CLAIMED IS:**

- 2 1. A liner hanger comprising:
3 a casing mandrel;
4 a cone assembly journaled on the casing mandrel;
5 a slot on an outer wall of the casing mandrel;
6 a groove, at least partially annular, on an inside surface of the cone assembly
7 oriented with the slot;
8 at least one wire situated in the slot and the groove.
9
10 2. The tool assembly of claim 1 wherein there are a plurality of slots, and a plurality
11 of grooves oriented with the slots.
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13 3. The tool assembly of claim 2 wherein there is a single helical slot oriented with a
14 single helical groove.
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16 4. A mechanical coupling between a liner hanger body and one or more cones, the
17 coupling comprising:
18 at least one indent in the liner hanger body outer wall;
19 at least one indent in an inner surface of the cones; and
20 a plurality of bearings at least partially located in the indent in the liner hanger
21 body outer wall and at least partially in the indent in the inner surface of
22 the cones to resist axial movement of the cones relative to the liner hanger
23 body.
24
25 5. A mechanical coupling between a liner hanger body and one or more cones, the
26 coupling comprising:
27 at least one indent in the liner hanger body outer wall;
28 at least one indent in an inner surface of the cones; and
29 a wire radially located in the indent in the liner hanger body outer wall and in the
30 indent in the inner surface of the cones to resist axial movement of the
31 cones relative to the liner hanger body.